

Claims

1. (Original) A release-paper backing, comprising a network of fibers and a yellow and/or red dye, the release-paper backing having a light transmission between about 40% and about 80% at a wavelength of about 680 nm, and having at least one major surface configured to support a release coating.
2. (Original) The release-paper backing of claim 1, comprising a yellow dye.
3. (Original) The release-paper backing of claim 1, having a light transmission between about 50% and about 80% at a wavelength of about 680 nm.
4. (Original) The release-paper backing of claim 1, having a Gurley density between about 4,000 seconds and about 10,000 seconds.
5. (Canceled)
6. (Original) The release-paper backing of claim 1, having a positive b^* value on the International Commission on Illumination $L^*a^*b^*$ scale.
7. (Canceled)
8. (Original) The release-paper backing of claim 1, wherein the yellow and/or red dye is distributed throughout the network of fibers.
9. (Original) The release-paper backing of claim 1, wherein the network of fibers is within a core sheet and further comprising a first coating on a first major surface of the core sheet and a second coating on a second major surface of the core sheet, wherein the first coating is configured to support the release coating, and the first coating comprises clay.

10. (Original) The release-paper backing of claim 9, wherein the first coating comprises between about 60% and about 80% clay.

11. (Original) The release-paper backing of claim 9, wherein the first coating further comprises starch, starch-like material, latex or a combination thereof.

12. (Original) The release-paper backing of claim 9, wherein the first coating further comprises starch or starch-like material and a crosslinking agent.

13. (Original) The release-paper backing of claim 9, wherein the second coating comprises starch and/or starch-like material and the starch and/or starch-like material substantially penetrates the core sheet to increase an ability of the release-paper backing to transmit light.

14 - 17. (Canceled)

18. (Original) A release-paper backing, comprising:
a core sheet comprising a network of fibers;
a first coating positioned on a first major surface of the core sheet and configured to support a release coating; and
light transmission increasing means for increasing an ability of the core sheet, the first coating and any applied release coating to transmit light therethrough, the light transmission increasing means being added to or applied on the core sheet.

19. (Original) The release-paper backing of claim 18, having a light transmission between about 40% and about 80% at a wavelength of about 680 nm.

20. (Original) The release-paper backing of claim 18, having a Gurley density between about 4,000 seconds and about 10,000 seconds.

21. (Original) A release-paper backing, comprising:

a network of fibers; and
a dye configured to increase an ability of the release-paper backing to transmit light,
wherein the release-paper backing has at least one major surface configured to support a release coating.

22. (Original) The release-paper backing of claim 21, wherein the dye is configured to increase the ability of the release-paper backing to transmit light generated by a red LED, a green LED, a blue LED, a white LED or a combination thereof.

23 - 39. (Canceled)

40. (Original) A release paper, comprising:
a network of fibers;
a release coating; and
a dye configured to increase an ability of the release paper to transmit light, the dye having a dye color selected to increase transmittance through the release paper, wherein the dye color is selected based, at least in part, on a color of light to which the release paper is subjected during optical detection operations.

41. (Original) The release paper of claim 40, wherein the dye is configured to increase the ability of the release paper to transmit light generated by a red LED, a green LED, a blue LED, a white LED or a combination thereof.

42. (Original) A method for making a release paper or release-paper backing, comprising:
forming a mixture comprising a paper stock and a dye selected to increase the light transmission of the release paper or release-paper backing at a wavelength range generated by a red LED, a green LED, a blue LED, a white LED or a combination thereof;
forming the mixture into a sheet;
applying a coating to a major surface of the sheet; and
hot-soft calendering the sheet.

43. (Original) The method of claim 42, wherein the coating is a first coating and further comprising applying a release coating over the first coating.

44. (Original) The method of claim 42, wherein the coating is a first coating, the major surface is a first major surface, and further comprising applying a second coating on a second major surface of the sheet, wherein the second coating comprises a starch or starch-like material and the starch or starch-like material substantially penetrates into the sheet.

45. (Original) The method of claim 42, wherein hot-soft calendering comprises calendering at a pressure between about 500 pli and about 2000 pli.

46. (Original) The method of claim 42, wherein hot-soft calendering comprises hot-soft calendering to achieve a Gurley density between about 4,000 seconds and about 10,000 seconds.

47 - 52. (Canceled)